

Key Issues for EoS Program

Identify the bulk-matter with partonic degrees of freedom

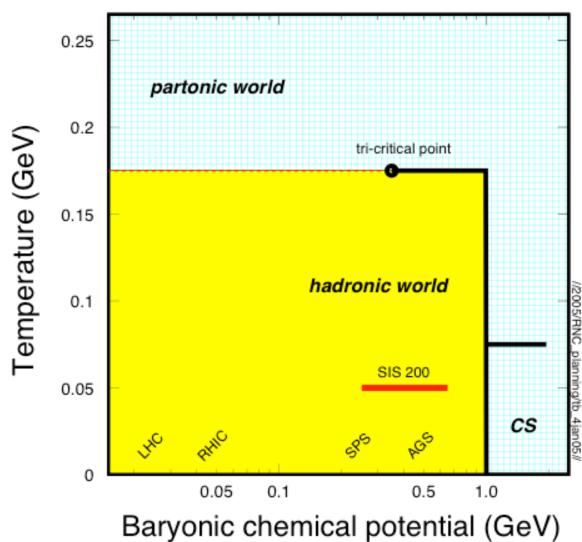
Study the properties of the partonic matter

Demonstrate the transition between partonic and hadronic worlds



Nuclear Phase Diagram





The location of the tricritical point is highly uncertain - experimental inputs are essential.

RHIC seems to be in the region of 'fast' cross-over.

To 'see' the transition from hadronic world to partonic world, one must cross the 'boundary' - **energy scan** at the region below RHIC energies.



Key Observables

- 1) Energy scan: correlation/ fluctuation analysis
- 2) Energy scan: vector meson measurements with both hadronic and leptonic channels
- 3) Energy scan: event anisotropy for π , K, p, and multi-strange hadrons ϕ , Ξ , Ω
- 4) Comparison: SIS, SPS and RHIC results